UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/709,124	04/15/2004	Jia-Lin Shen	12669-US-PA	3123

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JIANQ CHYUN INTELLECTUAL PROPERTY OFFICE
7 FLOOR-1, NO. 100
ROOSEVELT ROAD, SECTION 2
TAIPEI, 100
TAIWAN

EXAMINER
GISHNOCK, NIKOLAI A

ART UNIT	PAPER NUMBER
3714	

NOTIFICATION DATE	DELIVERY MODE
09/11/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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	Application No.	Applicant(s)
Office Action Summary	10/709,124	SHEN, JIA-LIN
	Examiner	Art Unit
	Nikolai A. Gishnock	3714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>*4/15/2004*</u>.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>*1-15*</u> is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>*1-15*</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>*15 April 2004*</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☒ All b)☐ Some * c)☐ None of:

     1.☒ Certified copies of the priority documents have been received.

     2.☐ Certified copies of the priority documents have been received in Application No. _____.

     3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
   Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Oath/Declaration

1.   The oath or declaration is defective. A new oath or declaration in compliance with 37

CFR 1.67(a) identifying this application by application number and filing date is required. See

MPEP §§ 602.01 and 602.02.

> The oath or declaration is defective because:
> It does not state that the person making the oath or declaration acknowledges the duty
> to disclose to the Office all information known to the person to be material to patentability
> as defined in 37 CFR **1.56**.

Priority

2.   Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), on 8/11/2004,

and which have been placed of record in the file.

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by
> another filed in the United States before the invention by the applicant for patent or (2) a patent
> granted on an application for patent by another filed in the United States before the invention by the
> applicant for patent, except that an international application filed under the treaty defined in section
> 351(a) shall have the effects for purposes of this subsection of an application filed in the United States
> only if the international application designated the United States and was published under Article 21(2)
> of such treaty in the English language.

4.   Claims 1, 5, 7-10, 14, & 15 are rejected under 35 U.S.C. 102(e) as being anticipated by

August et al. (US 7,149,690 B2), hereinafter known as August.

5.   August discloses an interactive computer-assisted language learning method

implemented using a language learning system (5:17-35), the method comprising: the language

learning system pronouncing a first sentence according to a first acoustic signal stored inside

the language learning system (the invention converts input text data to audible speech data,

3:52-54); a learner producing a first pronunciation by imitating the pronunciation produced by

the language learning system so that a first pronunciation signal is recorded by the language

learning system (the invention prompting the user to replicate the audible speech, recognizing

utterances generated by the user in response to the prompt, 3:58-60; the student will read the

sentences and they will be recorded, 3:63-66); the language learning system comparing the first

acoustic signal with the first pronunciation signal to record and output a first compared result

(Feedback is then provided to the student based on the comparison and a confidence measure,

8:23-48); the learner producing a second pronunciation according to the first compared result so

that the a second pronunciation signal is recorded by the language learning system (the system

will indicate to the student that there is a problem and will help the student to decide if he or she

should repeat the task, 11:1-15); the language learning system comparing the first acoustic

signal with the second pronunciation signal to record and output a second compared result (the

student could return to the original word, sub-word, or group being drilled, and continue to

practice, 12:33-43); and the language learning system analyzing and summarizing the first and

the second compared result to provide a comment to the learner as a reference (once the

student has been practicing for some period of time, he or she can again request feedback. A

summary can be created to provide feedback to the student, including overall scores, 11:16-26;

August also teaches comments as reinforcement help, such as messages, 11:62-12:8) [Claim

1].

6.   August discloses wherein the method further comprises the step of: the language

learning system outputting the pronunciation of a plurality of second sentences according to

second acoustic signals stored inside the language learning system, wherein all the second

sentences belong to a group having a pronunciation that can easily confuse with the

pronunciation of the first sentence (An analysis of known errors of pronunciation will be used to

assist the student. Word sound drills are used to locate and display/play vocabulary words from

either language, to illustrate sound-alike comparison to the student, 12:16-33) [Claim 5].

7.   August discloses wherein the comment is presented to the learner by displaying text on

a screen or vocalizing the commenting words (the student sees the {reinforcement help}

message in the window, and also hears the teacher speak the message, 11:62-12:15) [Claim 7].

8.   August discloses wherein the method further comprises the language learning system

designing a vocal training program according to the recorded first and second compared result

(Another practice feature associated with the workspace is an option to list practice sub-words,

words, or groups in a window, and permit practice of sounds relating to the specific problem

encountered by the student, 12:33-43; inherently, August teaches designing a training program

based on analysis of a student's specific problems) [Claim 8].

9.   August discloses a language learning system, comprising: a voice recognition engine

(ASR and TTS modules) for recognizing the pronunciation of a plurality of first sentences

produced by a learner and outputting a first pronunciation signal corresponding to each

pronunciation of the first sentence (the method is initiated with the input of text and subsequent

conversion of the input text to audible speech data. Audible speech is generated and output

based on the audible speech data. These models are generated primarily by the ASR module

and associated elements. However, in certain circumstances, the TTS module may also be

used to generate the acoustic models. A student is then prompted to replicate the audible

speech with spoken words, or utterances. The system then recognizes the utterances of the

student and compares these utterances to the audible speech data primarily through the

module, 8:23-48); a database (pronunciation module) for holding a plurality of first acoustic

signals with each first acoustic signal corresponding to a pronunciation of the first sentence (The

pronunciation module includes databases containing records for words, word subgroups,

vocabulary words used to teach typical sounds in a language, examples from parts of speech

used to teach contextual pronunciation of words and tables of punctuation. The sample words

are selected in creating the pronunciation databases based on grammatical and linguistic rules

for the language, 7:36-42); an analysis/processing unit (VIV portion, 6:54-7:6) connected to the

voice recognition engine and the database for comparing the first pronunciation signals output

from the voice recognition engine and the first acoustic signals retrieved from the database to

produce and output a compared result (This preferred form of the ASR module having the

verbal information verification (VIV) portion compares the output of phonemes processed by the

TTS engine and voice, its own acoustic model or any derived acoustic model, or utterances,

spoken by the student. This comparison provides the basis of the feedback to the student, 6:54-

7:6; also, the feedback preferably reflects the precision at which the user replicates the audible

speech in the selected language, 8:23-48), outputting a comment to the learner according to the

compared result (reinforcement help, such as messages, 11:62-12:8), and designing a special

program for training the pronunciation of the learner (individual word parts or phoneme matches

are analyzed to indicate where precisely the student may be having difficulty in pronunciation,

6:54-7:6; also, feedback is then provided to the student based on the comparison and a

confidence measure which is correlated to customized scoring tables and used as a calibration

point, 8:23-48); and a voice-synthesizing unit (the system includes a text-to-speech module, or

TTS module, 5:40-42) connected to the analysis/processing unit (The VIV portion analyzes the

similarity with which a speaker matches the file created by the TTS module, 8:23-48) for

converting the first sentence output from the database into a vocal sound (The TTS module has

associated therewith a rules module for facilitating the conversion of the text to audible speech.

More specifically, the rules module has stored therein code that allows multilevel analysis of the

words for which conversion to audible speech is sought, 5:64-6:20) [Claim 9].

10.   August discloses wherein the system further comprises a learning interface connected to

the voice recognition engine and the voice- synthesizing unit for receiving a command from the

learner and sending the command to the analysis/ processing unit so that the

analysis/processing unit selects part of the acoustic signals from the database according to the

command to produce a learning program and present the program on the learning interface

[Claim 10], and wherein the command comprises a voice command or a textual command

[Claim 11] (The student can use a tool to scroll through the {word and punctuation practice} list.

The student can highlight and select a word with a voice command or mouse. When the

phoneme, word, or group is highlighted, the teacher's voice is heard pronouncing the word,

11:27-61; selecting a word with the mouse is understood to be a textual command) [Claims 10 &

11].

11.   August discloses wherein the database further holds a plurality of second acoustic

signals each corresponding to the pronunciation of a second sentence such that the

pronunciation of each second sentence is similar to the pronunciation of the first sentence (Text

or audible help for this feature may be presented in the native language or the target language,

a combination, or both. The pronunciation files may include a table of sub-words and

corresponding sub-words in another language, to illustrate sound-alike comparison to the

student, 12:22-33; August discloses where this applies to full sentences in 5:64-6:9) [Claim 14].

12.　　August discloses wherein the first sentence is a single word, a phrase or a full sentence

(The rules module sequentially analyzes a selected word, analyzes the word in the context of

the sentence, and then analyzes the sentence format, 5:64-6:9). [Claim 15].

Claim Rejections - 35 USC § 103

13.　　The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

14.　　The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459

(1966), that are applied for establishing a background for determining obviousness under 35

U.S.C. 103(a) are summarized as follows:

1.　　Determining the scope and contents of the prior art.
2.　　Ascertaining the differences between the prior art and the claims at issue.
3.　　Resolving the level of ordinary skill in the pertinent art.
4.　　Considering objective evidence present in the application indicating obviousness or nonobviousness.

15.　　Claims 2-4 & 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over

August, in view of Jochumson (US 6,453,290 B1), hereinafter known as Jochumson.

16.　　August teaches all the features as demonstrated above in the rejection of claims 1 & 9-

11, including inputting a voice command [Claim 3] and a textual command [Claim 4] (The

student can use a tool to scroll through the list. The student can highlight and select a word with

a voice command or mouse, 11:27-61). What August fails to teach is permitting the learner to

select a desired learning program so that the first sentence is the first sentence of the selected

learning program [Claims 2-4]. However, Jochumson teaches a system and method for handling

voice commands in interactive language learning functions, using speech recognition (2:51-63). Jochumson teaches a client browser displaying text, graphics, and multimedia data to a user of an interactive language learning system, and the user selecting a speech processing exercise via the displayed web page associated with the selected exercise (4:20-30). Jochumson further teaches where the user selects a speech recognition exercise on a displayed web page {a textual command} (4:43-53), or where the user selects a speech recognition exercise involving the user speaking, executing a speech capture thread {a voice command} (4:54-67). The system and method of August, which uses automated speech recognition to capture voice commands and textual commands to select from a list of words for practice would be used, as taught by Jochumson, to select a desired learning program. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have used the voice and textual commands of Jochumson to permit the learner to select a desired learning program, so that the first sentence is the first sentence of the selected learning program, in the interactive language learning system of August, in order to resolve user-spoken words or phrases into a command or control for an application, thus adding to the flexibility of using the system and method [Claims 2-4].

17.   August teaches a system and method for interactive language learning, using both voice and textual commands to select from a list, as demonstrated above. What August further fails to teach is wherein the voice command is converted into a textual command after the voice recognition engine has recognized the voice command [Claim 12]. However, Jochumson teaches where a plurality of language learning clients can send commands to a server, which in which a speech processing thread is responsible for accepting encoded audio, or speech, data packets from a client, decoding the audio packets into their original raw speech data, evaluating the raw speech data via a command and control speech engine, and transmitting a response, or

appropriate feedback, to the client, to be provided to the user (10:10-28), and where responsive

feedback from the speech recognition program may be in the form of text (4:5-11). Jochumson

further teaches where speech recognition is used to process voice commands (such as at 2:51-

63). Jochumson thus teaches converting the voice commands of a user into text commands, a

known technique that is applicable to the system and method of August. Thus, it would have

been obvious to one of ordinary skill in the art to apply the technique of converting the voice

command into text after being recognized, as taught by Jochumson, to improve the system and

method of August, for the predictable result of displaying the voice command on the display of

the interactive language-learning device [Claim 12].

18.   Claims 6 & 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over August,

in view of Morse, III et al. (US 6,120,297), hereinafter known as Morse.

19.   August teaches all the features as demonstrated above in the rejection of claims 1 & 9,

including output related to the pronunciation of a sentence (for any case including for words that

have been mispronounced, the system can arrange the words into an order such as closest

match through not well matched and as a default, can present the items needing most work at

the top of the list. Word lists appear in the working window, 11:27-61), and a database holding

words, sub-words, and groups related to a sentence (A word and punctuation list can be used to

practice pronunciation skills, review definitions, etc. The list may be created from a lesson file,

from a dictionary or other reference material, from the Internet, or from a list of sub-words,

words, or groups pronounced inaccurately by the student, 11:28-61). What August fails to

explicitly teach is wherein the method further comprises the step of: the language learning

system outputting full sentences, synonyms and phrases related to the pronunciation of the first

sentence [Claim 6], and wherein the database further holds full sentences, phrases and

synonyms that are closely related to each first sentence [Claim 13]. However, Morse teaches an interactive language learning device, having exercise involving selecting an appropriate synonym for a target word in a sentence (11:55-59), and an exercise involving selecting a word to complete a sentence, where the incomplete sentence is understood to be a phrase (12:32-38). The database and output comprised of words, sub-words, and groups of words, taught by August, would also contain full sentences, synonyms, and phrases, as taught by Morse, as all are merely words and groups of words. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have the language learning system of August outputting full sentences, synonyms and phrases related to the pronunciation of the first sentence, as taught by the exercises of Morse, and wherein the database of August further holds full sentences, phrases and synonyms that are closely related to each first sentence, as taught by the exercises of Morse, in order to provide background to the student for learning and retaining a target word's or sentence's proper definition and use [Claims 6 & 13].

Conclusion

20.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kim (US 2003/0129571 A1) discloses a system and method for language education, which stores spoken sentences as text data. Raya et al. (US 2004/0241625 A1) discloses a method of teaching pronunciation via a telephone network, using a database of grammar files for various languages, using speech recognition to interpret voice commands to select relevant lessons based on language and level. Willetts (US 5,010,495) discloses an interactive language learning system allowing a student to select a text phrase, and recording his/her attempt at pronunciation of the phrase, and listen to a comparison of the recording with a digitized vocal version of the selected phrase.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nikolai A. Gishnock whose telephone number is 571-272-1420. The examiner can normally be reached on M-F 8:30a-5p.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert E. Pezzuto can be reached on 571-272-6996. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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8/31/2007

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